

Case 3678

A proposal to affirm that 'Formenkreis' is not a genus-group taxonomic rank with potential availability

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Abstract. The purpose of this application, under Article 89.1.1 of the Code, is to promote universality in the interpretation of the notion 'superspecies' as used in Article 10.4 of the Code, particularly with respect to certain European land snails, by asking the Commission to rule that 'Formenkreis' (plural 'Formenkreise') is not a genus-group taxonomic rank with potential availability. According to Article 10.4 of the Code not all subdivisions of a genus are equal. A borderline exists between 'section' or 'division', both deemed to be subgenera, and a still lower level of taxa that are referred to with 'a term such as superspecies'. The term 'superspecies' was introduced by Mayr (1931) as a gloss, for international use, of the German term 'Artenkreis', which itself was a replacement term for 'Formenkreis'. This implies that a name proposed for a 'Formenkreis' should not be deemed to be a genus-group name.

Keywords. Nomenclature; taxonomy; superspecies; Formenkreis; land snails.

1. Article 10.4 of the Code reads: 'A uninominal name proposed for a genus-group division of a genus, even if proposed for a secondary (or further) subdivision, is deemed to be a subgeneric name even if the division is denoted by a term such as "section" or "division"; but a name used for an aggregate of species which is denoted by a term such as "superspecies" is not deemed to be a genus-group name.'

2. Therefore according to Article 10.4 of the Code not all subdivisions of a genus are equal. This is obvious because of the use of the wording 'even. . . a. . . section or division', suggesting that this is the lowest level in the taxonomic hierarchy which can be given a genus-group name. Article 10.4 continues with 'but', which is indicative of a case of exclusion. Lower taxa in the hierarchy are excluded. The level that is excluded is denoted by a term 'such as "superspecies"'.

3. The Code does not specify, in the Glossary or elsewhere, which ranks constitute 'a term such as "superspecies"', but the literature on systematic zoology leaves no doubt that the German 'Formenkreis' is such a term, if not a pure synonym of superspecies. Stresemann (1936) explicitly dealt with the concept of 'Formenkreis', showing its similarity to what became known as superspecies later on. Mayr & Ashlock (1991), in their fundamental 'Principles of Systematic Zoology [2nd ed.]', cited 'Artenkreis' as a synonym for superspecies while stating (p. 53), 'Since the literal translation "circle of species" was frequently misunderstood, Mayr (1931) introduced the term *superspecies* as a convenient international equivalent'. Mallet (2001, 2004, 2007) explained that Rensch (1929) had replaced the term 'Formenkreis' (circle of

forms) by two new terms, viz. ‘Rassenkreis’ (circle of races) and ‘Artenkreis’ (circle of species).

4. Names introduced under the heading ‘Formenkreis’ for European land snails by Wagner (1897) were not accepted as valid in the malacological monographs of Thiele (1929–1931), Wenz (1938–1944), and Zilch (1959–1960). As a consequence, Giusti (1971, p. 353), for example, introduced the generic name *Toffolettia* for *Pomatias striolatum* Porro, 1840, neglecting the name *Striolata*, which was given by Wagner (1897, p. 569 [5]) to a ‘Formenkreis’ that included this nominal species. Sysoev & Schileyko (2009, p. 10) subsequently used *Toffolettia* as a valid generic name. Recently, Zallot et al. (2015), in a revision of the genus-group taxonomy of the COCHLOSTOMATIDAE, also regarded the 19 names that were used for taxa at the rank of ‘Formenkreis’ by Wagner (1897) as invalid under Article 10.4 of the Code.

5. Article 6.2 of the Code, along with its accompanying Example, offers the possibility of interpolating a specific name in parentheses between the genus-group name and the specific name, to denote an aggregate of species within a genus-group taxon. The nominal species mentioned in the preceding paragraph could be called *Pomatias* (superspecies *striolatum*) *striolatum* at its first appearance in a work, and *P.* (*striolatum*) *striolatum* thereafter; in Giusti’s (1971) new combination, the name would become *Toffolettia* (*striolata*) *striolata*. Wagner (1897) used 15 ‘Formenkreis’ names that are identical to the specific name of one of the included species and are thus amenable to this sort of treatment, but four other ‘Formenkreis’ names do not correspond to a specific name but were independently based on rareness or distribution, viz., *Rara* (p. 568 [4]), *Tunetana* (p. 569 [5]), *Cisalpina* (p. 569 [5]), and *Neglecta* (p. 570 [6]). Therefore Article 6.2 cannot be applied here in a fully satisfactory way.

6. Falkner et al. (2002, p. 69) did not accept *Toffolettia* Giusti, 1971 and regarded *Striolata* Wagner, 1897 as a valid, senior, genus-group name. These authors, while referring to the ‘Formenkreis *Striolata*’, stated without any further explanation that this name was valid under Article 10.4 of the Code. Riedel (1980) also accepted names given to ‘Formenkreise’ as valid, viz. *Crystallinus* Wagner, 1907 [= *Crystallus* Lowe, 1854], and *Subrimatus* Wagner, 1907.

7. The two incompatible opinions regarding the validity of names proposed for ‘Formenkreise’, both allegedly dictated by Article 10.4 of the Code, disturb universality in the malacological nomenclature. To avoid confusion, the meaning of the word ‘superspecies’, as used in Article 10.4 of the Code, should not differ from the meaning that is attributed to this and similar terms in general systematic zoology. Treating ‘Formenkreis’ and its above-mentioned German synonyms as an aggregate of species equivalent to a ‘superspecies’ meets this goal best. A negative ruling on either of the proposals below must be interpreted, however, as an affirmation that names of the stated rank are indeed to be treated as subgeneric names.

8. The International Commission on Zoological Nomenclature is accordingly asked to use its specific powers to rule:

- (1) that ‘Formenkreis’ (plural ‘Formenkreise’) is not a genus-group taxonomic rank with potential availability;
- (2) that ‘Rassenkreis’ and ‘Artenkreis’ (respective plurals ‘Rassenkreise’ and ‘Artenkreise’), being synonyms of ‘Formenkreis’ in (1) above, are also not genus-group taxonomic ranks with potential availability.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).